# Combined Structural and Operational Plan (CSOP) for the Modified Water Deliveries to ENP and C-111 Basin Projects

Water Resources Advisory Commission July 6, 2006

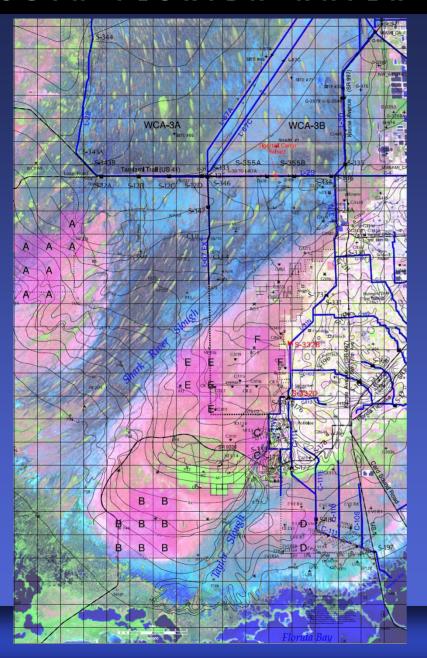
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#### **Evolution of CSOP**

- 2/99: US Fish & Wildlife issues jeopardy biological opinion concerning Cape Sable seaside sparrow.
- 12/99: Corps of Engineers develops Interim Structural and Operational Plan (ISOP) to meet requirements of biological opinion.
- 5/02: Corps, with SFWMD, ENP, and USFWS, develops an Interim Operational Plan (IOP) to supersede ISOP.
- 3/06: Corps identifies CSOP that will supersede IOP.





# **Project Objectives**

- Improve water deliveries to ENP.
- Take steps to restore natural hydrologic conditions within ENP.
- Reduce damaging freshwater flows to Manatee Bay and Barnes Sound.
- Improve ecology of Taylor
  Slough and Eastern
  Panhandle ecosystems.



# Requirements

- Provide flood protection level of service to residents of 8.5 SMA as authorized by Congress.
- Provide flood protection level of service to agricultural and urban areas within project area equal to or better than that provided under the Interim Structural and Operational Plan of 2001 (ISOP 2001).



#### **Status**

- Tentatively Selected Plan identified in March 2006.
- Advisory Team transmits Consensus Recommendations to Task Force in May 2006.
- Draft Water Control Plan is under agency review.



#### **CSOP Performance in WCAs**

- Improved flows from WCA-3A to WCA-3B.
- Frequency of high water levels in WCA-3A is reduced by more than 50%.
- Slight but acceptable increase of high water levels in southeastern WCA-3B.
- Improved timing and distribution of flows to Shark Slough from WCA-3A and -3B.

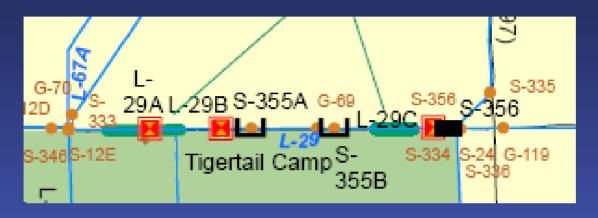


# L-67 Conveyance



Improvements allow continuous flow from WCA-3A to WCA-3B in dry and wet conditions.

## L-29 Conveyance



Improvements allow continuous flow from WCA-3B to Northeast Shark Slough in dry and wet conditions.

Twenty-fold increase in flows from existing conditions.



**S-356** 

- The 950 cfs capacity pump delivers to ENP 180,000 acre-feet per year of seepage collected from WCA-3B, Pennsuco wetlands, and Northeast Shark Slough.
- This accounts for more than 90 percent of the total amount pumped.
- At this capacity, it allows G-211 to become a basin divide structure.



#### **Additional Performance Features**

- 8.5 SMA flood protection system provides authorized level of service.
- ISOP 2001 Flood Protection Level of Service for Urban and Agricultural Areas.
- Improves distribution of flows to Florida Bay



#### **Process To-Date**

- Collaborative NEPA process followed: USACE as lead agency with SFWMD, NPS, USFWS as cooperating agencies.
- Project Delivery Team developed and analyzed alternative plans
- Advisory Team reviewed alternative plans and performance for 2-1/2 years.



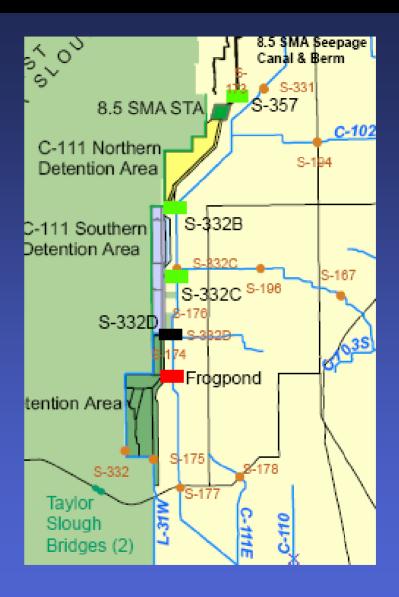
# **Advisory Team Issues**

- High water levels in WCA-3A and -3B
- Capacity of S-356 pump station
- Ecological benefits to Florida Bay
- Increased use of C-111 Basin buffer system
- Sequencing of projects
- Flood protection for 8.5 Square Mile Area



#### SOUTH FLORIDA WATER MANAGEMENT DISTRICT







### **SFWMD Recommendations for TSP**

- Maintain 950 cfs capacity of S-356.
- Include pre-storm drawdown protocols in Water Control Plan.
- Optimize operation of C-111 Basin buffer system.
- Optimize configuration of L-67A fixed and operable structures.



# **Next Steps**

- Corps releases Draft Environmental Impact Statement later this year.
- Corps initiates consultation with USFWS.
- SFWMD issues Letter of Intent to become Local Sponsor.
- USACE Record of Decision to be signed in 2007.

